Interim Text to 9-1-1

A National Text to 9-1-1 Clearinghouse to Ease Implementation and Support Choice for States



Bandwidth's Position

- An interim Text to 9-1-1 solution for the deaf and hard of hearing community is well worth the investment now
- Cost effective options exist
- It may be decades before the entire country is end-to-end NG9-1-1 ready
- A National Text to 9-1-1 Clearinghouse provides choices for the states and a simplified implementation for wireless carriers and overthe-top (OTT) application providers

Bandwidth's Experience

inetwork division:

- A CLEC in 49 States
- Wholesale voice services provided to nearly 500 customers
- Over 14 million DIDs SMS enabled
- 9-1-1 Call Routing Services to Originating Service Providers (OSPs)
- Leadership in NG9-1-1
- Early involvement in services for the deaf and hard of hearing - ITRS Database

Bandwidth's Text to 9-1-1 Role

- Support for the four primary options being contemplated
 - 9-1-1 Text to IP Relay (12 TRS/VRS service providers)
 - 9-1-1 Text to TTY (Neustar)
 - 9-1-1 Text to Internet Delivery (Agent 5-1-1)
 - 9-1-1 Text to NG9-1-1
- Services provided through inetwork division
 - Message routing
 - Location information delivery to PSAPs



Current Issues

- No agreement on a single Text to 9-1-1 solution for nationwide deployment
- No agreement on the ROI for an interim solution
- Consensus that the deaf and hard of hearing do not have equal access to emergency services
- Strong support for accelerated deployment of NG9-1-1

Additional Bandwidth Role

- National Text to 9-1-1 Clearinghouse
 - Simplifies implementation by the wireless carriers and the OTT application providers
 - Allows for a speedy implementation but supports the evolution to other Text to 9-1-1 solutions including NG9-1-1 as they are available
 - Puts the choice of what Text to 9-1-1 solution is best for their citizens in the hands of the states and 9-1-1 Authorities



Possible Evolution Scenarios

Scenario 1

Text to TTY to designated State PSAP



Text to TTY to every PSAP



Text to NG9-1-1 to Designated PSAP



Text to NG9-1-1 to all PSAPs

Scenario 2

Text to IP Relay



Text to Internet Delivery

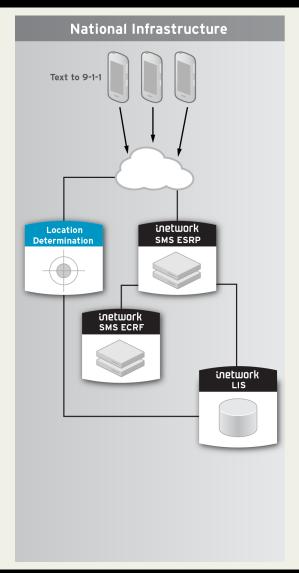


Text to New Internet Delivery



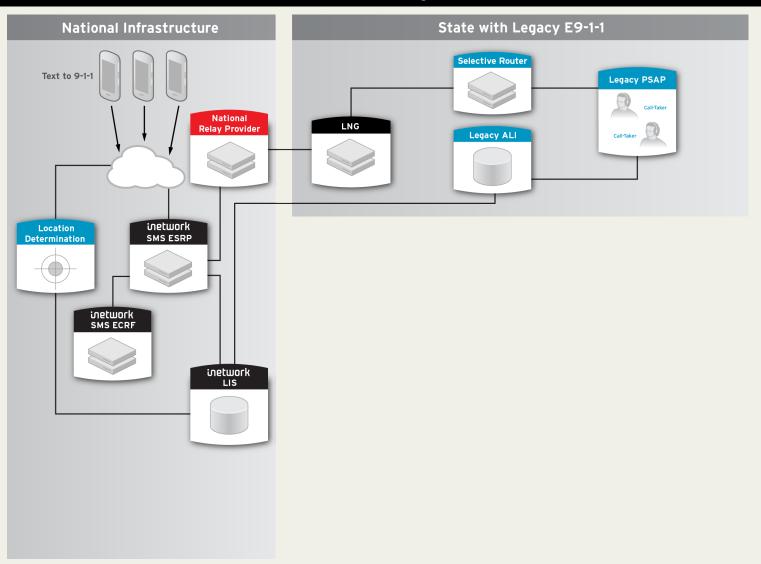
Text to NG9-1-1 to all PSAPs

National Text to 9-1-1 Clearinghouse

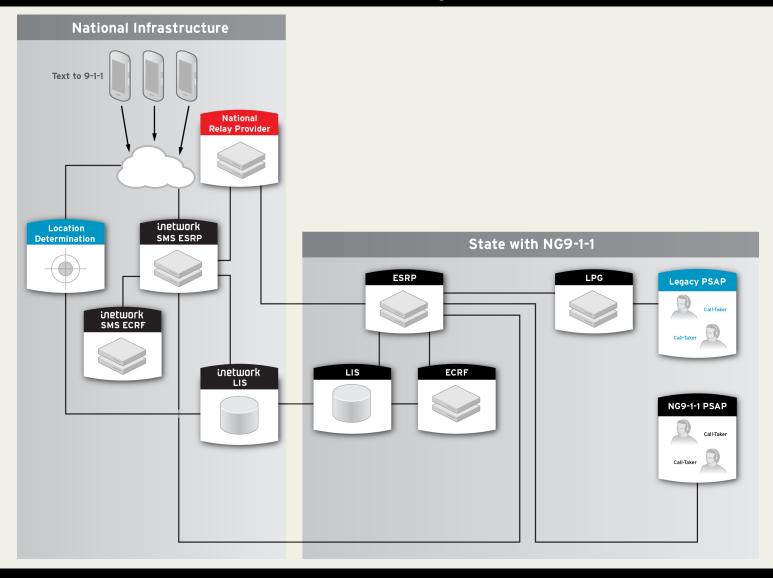


- Exposes a standard interface to OSPs that remains constant throughout the evolution to NG9-1-1
- Allows states to choose the Text to 9-1-1 solution that they feel is most appropriate for their population now
- Allows states to migrate to other solutions as they become available and to NG9-1-1

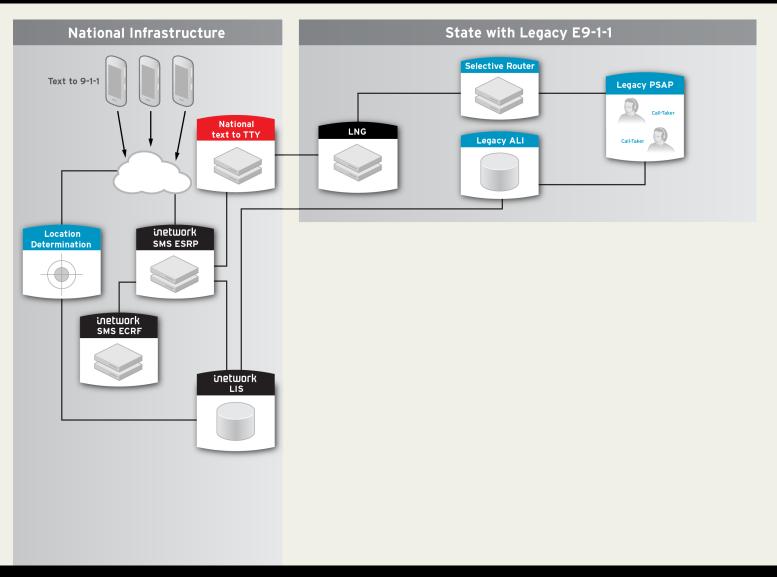
9-1-1 Text to IP Relay – Default Route



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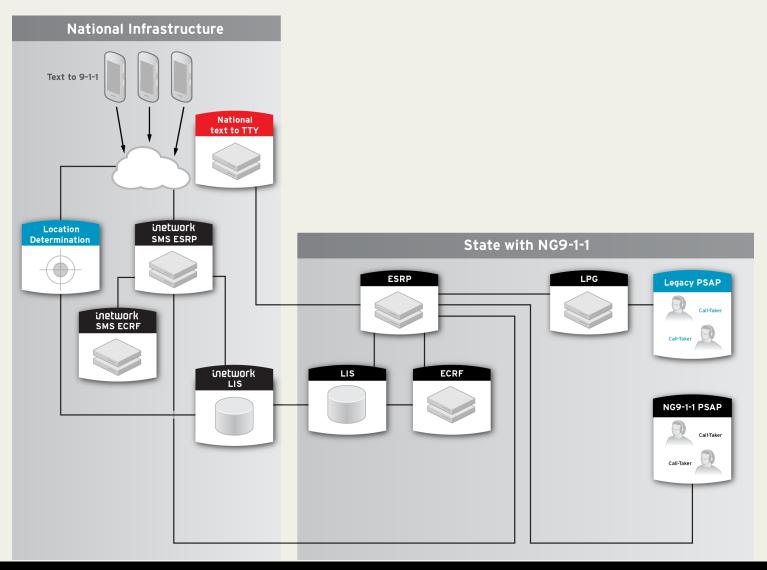


9-1-1 Text to TTY



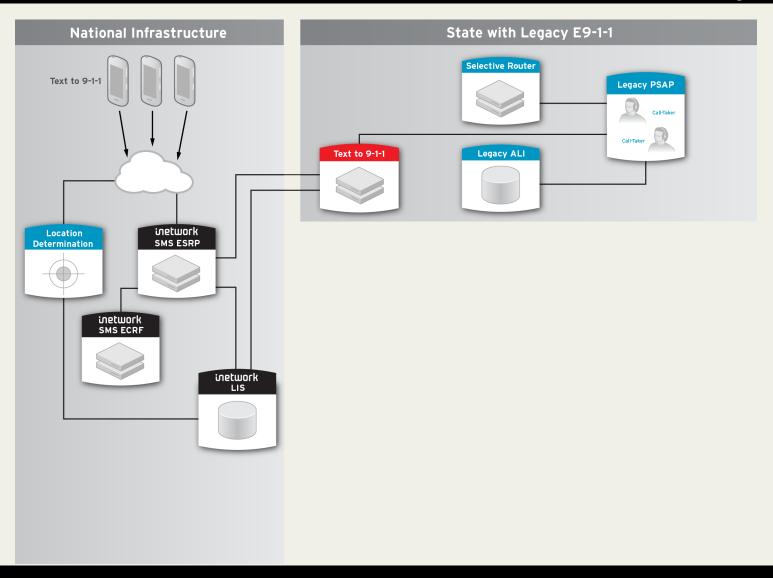


9-1-1 Text to TTY

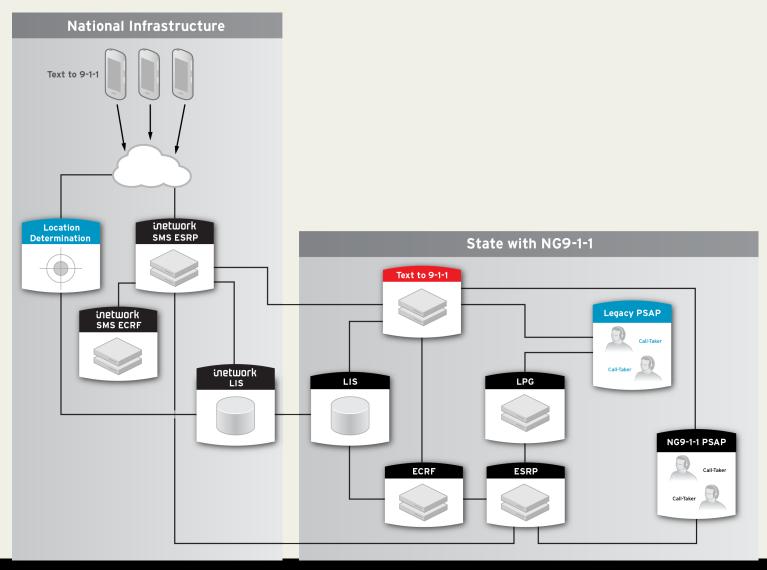




9-1-1 Text to Internet Delivery



9-1-1 Text to Internet Delivery

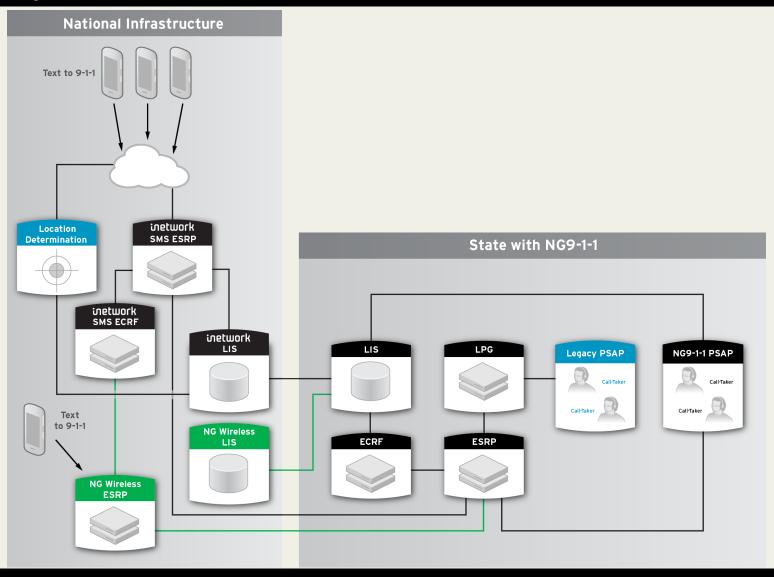




Support for Transition to NG9-1-1

- Implemented using NG9-1-1 Components: ECRF, ESRP, LIS
- Provides layer of abstraction for OSPs as they migrate
- Can still be used after nationwide implementation of NG9-1-1 as a specialized Forrest Guide
- Open, standards-based architecture

Open, Standards Based Architecture





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PRICING



Text to 9-1-1 Clearinghouse Pricing

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Pricing - Scope

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Leveraging Existing Infrastructure

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Cost - Services Acquired

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Budgetary Pricing – Non-Recurring

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Budgetary Pricing – Annual Recurring Costs

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Other Cost Considerations

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Implementation Timeline

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Implementation Timeline

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Suggested Funding Model

- National Text to 9-1-1 Clearinghouse
 - TRS/VRS Funds
- 9-1-1 Text to IP Relay
 - TRS/VRS Funds (Unchanged)
- 9-1-1 Text to TTY
 - TRS/VRS Funds
- 9-1-1 Text to Internet Delivery
 - State selected, state funded
- 9-1-1 Text to Other approved Options
 - TBD



Summary

- Interim Text to 9-1-1 for the deaf and hard of hearing should be implemented
- No clear "best" choice today
- New solutions should be embraced and encouraged
- Migration to NG9-1-1 should be encouraged
- State 9-1-1 Authorities should have choice
- Interface to OSPs should be simple and consistent
- National Text to 9-1-1 Clearinghouse provides a solution at minimal cost